

Amendments to the Written Description

At specification page 3, please replace paragraph [0010] with the following replacement paragraph [0010]:

[0010] In order to attain the above objects, according to the present invention, a flow control valve includes a cylindrical body having a fluid input port or orifice and a fluid output port or orifice formed in a sidewall thereof; a spool fitted in the cylindrical body for compensating a pressure; a spring contacting the spool for applying a force in an axial direction; and a flow ~~by-path~~ bypass connecting the fluid input orifice and the fluid output orifice. In the flow control valve of the present invention, it is possible to maintain a constant flow rate even when pressures at a front side and a rear side of the flow control valve are changed.

At specification pages 3-4, please replace paragraph [0011] with the following replacement paragraph [0011]:

[0011] Fig. 1 is a vertical sectional view showing a structure of a flow control valve according to an embodiment of the invention;

Fig. 2 is a sectional view of an input and an output port according to the embodiment;

Fig. 3 is a sectional view of a flow ~~by-path~~ bypass according to the embodiment;

Fig. 4 is a sectional view showing an operating state of the flow control valve according to the embodiment;

Fig. 5 is a graph showing flow control characteristics;

Fig. 6 is a vertical sectional view of a conventional flow control valve; and

Fig. 7 is a vertical sectional view of another conventional flow control valve.

At specification page 5, please replace paragraph [0014] with the following replacement paragraph [0014]:

[0014] Fig. 2 shows a sectional view including a surface cutting through centers of the orifices 8 constituting the input port 1c or centers of the orifices 9 constituting the output port 1d. A plurality of orifices 8 and orifices 9 is provided parallel to an axis of the body 1. As shown in Fig. 3, a flow ~~by-path~~ bypass 10 is provided parallel to the body 1 between the supply flow path and the output port 1d. In order to prevent the fluid from leaking outside, an O-ring 6 is provided between the chassis block 11 and the body 1, and an O-ring 5 is provided between the plug 4 and the body 1, respectively.

At specification page 6, please replace paragraph [0017] with the following replacement paragraph [0017]:

[0017] The fluid force F_3 is expressed by the following equation:

$$F_3 = \rho QV \cdot \cos\theta \dots\dots\dots(1),$$

wherein ρ is a density ($\text{kgf} \cdot \text{sec}^2 / \text{cm}^4$) of the fluid (operating oil); Q is a flow quantity (cm^3 / sec); and V is a flow rate (cm / sec) at the throttle portion. Incidentally, the angle θ is an average

angle of the fluid in a flow direction at the ~~output~~ input port ~~1d~~ 1c.

At specification page 7, please replace paragraph [0020] with the following replacement paragraph [0020]:

[0020] When the flow rate increases further, as shown in equation (1), the fluid force F_3 increases in proportion to the current speed V to move the spool 2 in the right direction. Accordingly, the opening of the orifice 8 is narrowed to reduce a quantity of the fluid flowing out from the orifice 9. On the other hand, the flow rate from the fluid supply side to the output port 1d through the flow ~~by-path~~ bypass 10 increases. A total quantity of the fluid relative to the fluid supply pressure is shown in Fig. 5.

At specification page 7, please replace paragraph [0021] with the following replacement paragraph [0021]:

[0021] In the flow control valve of the invention, the flow ~~by-path~~ bypass 10 is provided as a fixed orifice at an outside of the flow control valve for connecting a front side and a rear side of the valve. When the flow rate is reduced with the fluid force F_3 acting on the spool 2, the fluid flowing through the flow ~~by-path~~ bypass 10 compensates the reduction. Therefore, it is possible to obtain the flow control valve with the excellent pressure compensation function. As shown in Fig. 5, when the flow control valve has no ~~by-pass~~ bypass flow path 10, the flow rate is remarkably reduced as the fluid pressure increases. In contrast,

when the flow control valve has the ~~by-pass~~ bypass flow path 10,
the flow rate is little changed with the fluid pressure.